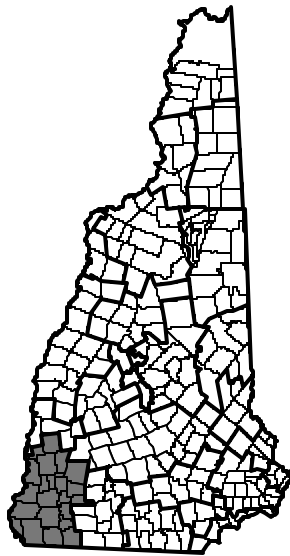


# Keene Healthcare Service Area Regional Health Profile



This narrative is part of a larger effort, the *New Hampshire Regional Health Profiles*, and grew out of a mandate established by the Legislature in its passage of SB 183 in 1999. That bill amended RSA 126A to include a requirement for the Department of Health and Human Services to continually assess the health status of the State's residents and to make its findings available in a report issued every two years.

This narrative was jointly developed by the Dartmouth Hitchcock Alliance and the Department and is the first to be issued under this legislation. The *Regional Profiles* provide a means for residents, community leaders, planners and providers to gain a better understanding of the health status of the State's residents and communities.

The *Regional Profiles* provides information that can be used to establish local *Healthy New Hampshire 2010* targets and to meet the needs assessment expectations of the State's Community Benefits legislation

## Overview of the HSA

The Keene Healthcare Service Area (HSA) consists of 22 towns. Together these 22 towns had an estimated population of just over 62,000 in 1998. They cover an area of 659 square miles, resulting in a population density of 94 people per square mile. The population has an age distribution slightly weighted more with elderly, and considerably more with 18-24 year olds than is the case in New Hampshire in general. The greater proportion of 18-24 year olds is probably due to the presence of Keene State College. The figure on the following page presents a graphic comparison of the HSA and State populations.

Town Name	1998 Pop Est	% of HSA Pop	% of HSA Self Pay Admissions	Ratio of Self-Pay Admissions to Pop Pct	1996 Per Capita Income	Pop Density (persons per sq. mi.)	Miles to Nearest Hospital*
Acworth	779	1%	1%	0.9	\$14,911	20	26
Alstead	1,759	3%	3%	1.1	\$17,103	45	18
Chesterfield	3,290	5%	2%	0.4	\$19,211	72	12
Fitzwilliam	2,055	3%	3%	0.8	\$16,790	59	13
Gilsum	749	1%	1%	0.7	\$13,336	45	8
Harrisville	1,021	2%	1%	0.5	\$19,829	55	8
Hinsdale	4,089	7%	2%	0.3	\$14,538	197	24
Keene City	23,090	37%	48%	1.3	\$17,112	623	-
Langdon	644	1%	0%	0.2	\$16,340	40	19
Marlborough	2,059	3%	5%	1.4	\$16,163	101	5
Marlow	661	1%	2%	1.6	\$15,902	25	15
Nelson	578	1%	0%	0.5	\$20,524	26	15
Richmond	955	2%	0%	0.1	\$16,910	25	17
Roxbury	257	0%	0%	0.1	\$15,904	22	7
Stoddard	650	1%	1%	0.8	\$16,214	13	20
Sullivan	722	1%	1%	0.9	\$16,848	39	8
Surry	694	1%	0%	0.1	\$19,011	44	7
Swanzy	6,713	11%	10%	1.0	\$17,243	149	5
Troy	2,130	3%	4%	1.2	\$13,726	122	9
Walpole	3,359	5%	3%	0.5	\$19,216	94	16
Westmoreland	1,683	3%	2%	0.8	\$18,246	47	17
Winchester	4,223	7%	11%	1.6	\$12,846	77	12
<b>HSA Total</b>	<b>62,160</b>				<b>\$16,747</b>	<b>94</b>	
New Hampshire	1,185,000					132	

\* = Nearest Hospital may be in a different HSA

- 1998 Population Estimate = New Hampshire Office of State Planning.
- Percent of HSA Self Pay Admissions = Each community's share of individual overnight hospital admissions for the full HSA that are recorded as "Self Pay" on the Uniform Hospital Discharge Data Set for 1998.
- Ratio of Self-Pay Admissions to Population Percentage = Percent of HSA self-pay admissions divided by the percent of HSA population. A higher ratio reflects a greater proportion of individuals within a community who must cover the costs of hospitalization from their personal resources, i.e., they do not have health insurance coverage for the hospitalization.

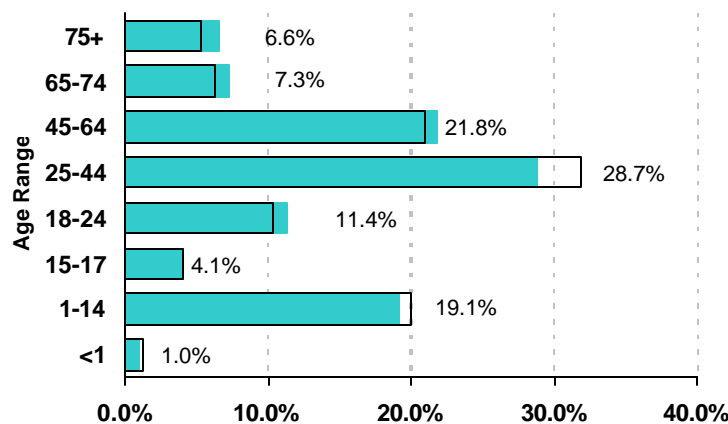
- 1996 Per Capita Income = Office of State Planning, from the Department of Revenue Administration.
- Population Density = Total square miles from the Office of State Planning, divided by the 1998 Population Estimate.
- Miles to Nearest Hospital = mileage from a community to the nearest hospital that may not be the hospital(s) in the HSA, as given in the *1999 New Hampshire Community Profiles*, published by the State Occupational Information Coordinating Committee (SOICC) of New Hampshire.

## Demographic Profile

### Percentage of Population by Age

Shaded and Labeled bars = HSA population profile

Outlined bar = State population profile



Graphics are based on data provided in the Primary Care Data Set, 1993-1997, which stated “State, city, and town population counts for New Hampshire have been obtained by applying the proportions from the 1995 New Hampshire Population Projections for Counties by Age and Sex to the 1995 Population Estimates of New Hampshire Cities and Towns; both of which were prepared by the New Hampshire Office of State Planning (OSP). The population figures for 1995 were chosen for use in calculating rates since this year represents the midpoint of the five years of study, 1993 through 1997... Since the town-specific age and sex population estimates are based on town-wide estimates applied to county level projections, it is assumed that there is an unknown amount of error in the individual components of the estimates. However, when combining towns together to construct HSAs, much of the variability in the town-specific estimates is assumed to be canceled.” *Primary Care Access Data, 1993-1997*

Limited data on population and households from the national 2000 census is provided in the Census 2000 section of the *Regional Profiles*. That data will be updated at the *Regional Profiles* website as it becomes available and should be used when reviewing the “Additional Indicators” section below.

## Health Profile

The points offered below are provided as an overview of the health of the HSA in the three **Regional Profile** focus areas: *Current Health*, *Use of Health Care* and *Risks to Future Health*. These are provided as a representative sample of findings presented in the data tables and should not be construed as the most important findings. Readers are urged to review the data tables to better understand the conditions and circumstances of this HSA.

In some instances, the differences between the HSA and the State are described as significant. This refers to a difference being “statistically significant.”

- When the source of the data is the 1999 NH Health Insurance Coverage and Access Survey (NH HICAS), the difference is significant at the 95% confidence level, i.e., when the range between the upper and lower confidence intervals for the HSA is higher or lower than the range for the State confidence interval (the confidence ranges do not overlap).
- When the source of data is the Primary Care Access Data set (PCAD), a difference is also significant at the 95% confidence level, based on a “z test score,” a test for statistical significance, i.e., when this test statistic is “significant,” there is 95% confidence that the rates being compared are different for reasons other than “random chance.”
- Because a finding is statistically significant, i.e., not due to chance alone, the difference may not be of sufficient magnitude to be practical or meaningful to understanding the health issue or for developing strategies.
- A finding that a difference is not statistically significant may not mean that there is no value to paying attention to the difference, i.e., not being statistically significant does not mean that it is not important or necessary to consider the underlying health issues for indicators that are different between the HSA and the State, particularly on indicators that seem to show a trend or relationship, such as between indicators associated with births.

All rates in this narrative have been age-adjusted. The calculation of age-adjusted rates makes it possible to compare the rates between an HSA and the State. The proportion of the population in each age range varies from HSA to HSA and between an HSA and the State. Thus, it would be misleading to compare HSA rates to the State rate unless the rates were adjusted for this variation in the distribution of age ranges.

Please refer the *Technical Notes* section for an explanation of the age-adjustment calculation and the calculations for statistical significance and confidence intervals.

Unless noted in the text, the data date and source are given in [ ] at the end of each point. Key to abbreviations:

- NHES = New Hampshire Employment Security.
- NH HICAS = *New Hampshire Health Insurance Coverage and Access Survey, 1999*; Office of Planning and Research, Department of Health and Human Services.
- PCAD = *Assessing New Hampshire's Communities: Primary Care Access Data, 1993-1997*; Health Statistics and Data Management Bureau, Office of Community and Public Health.
- UHDDS = Uniform Hospital Discharge Data Set, maintained by the Health Statistics and Data Management Bureau, Office of Community and Public Health.
- US Census = Taken from 1990 Census of Population and Housing Summary Tape File 3A (STF3A), 1990 US Census data, US Department of Commerce.

## Observations on Current Health

- In this HSA 94.7% of the residents under age 65 characterized their health as “good,” “very good,” or “excellent” in the 1999 NH Health Insurance Coverage and Access Survey. The State average was almost the same: 94.8%.
- According to the 1999 NH Health Insurance Coverage and Access Survey 4.1% of the HSA residents under age 65 had a chronic condition lasting more than one year. The State average of 5.9% was higher, though not significant.
- 2.5% of the population between 16 and 64 had a disability and were not a part of the work force. The State average was 2.9%. [1990; US Census]
- The rate for “premature deaths” (deaths to individuals ages 18 to 64) in the Keene HSA was significantly lower (2.1 per 1000 population) compared to the State rate (2.6 per 1000 population). [1993-1997; PCAD]
- The rate of low weight births in the Keene HSA was 54 per 1000 births. This was comparable to the State rate of 52 per 1000 births. [1993-1997; PCAD]

## Observations on Use of Health Care

- 25.4% of the population in the HSA under the age of 65 was not “extremely” or “very” confident in their access to health care. This was higher than the State average (19%), though not significantly. [1999; NH HICAS].
- 5.1% of the population in the HSA under age 65 did not have a usual source of health care according to the 1999 NH Health Insurance Coverage and Access Survey. The State average was 6.9%.
- In the year prior to the 1999 NH Health Insurance Coverage and Access Survey 8.5% of the under age 65 population in the HSA had not seen a doctor. The State average was 11.7%.
- 20.4% of the under age 65 population in the HSA had not had a dental visit in the year prior to the 1999 NH Health Insurance Coverage and Access Survey. The State average was slightly more (21.9%).

**Ambulatory Care Sensitive Conditions** = medical conditions that may not require inpatient hospitalization (a stay of at least one night) if timely and appropriate primary care is received.

- The rate of hospital admissions for rapid onset ambulatory care sensitive conditions, such as pneumonia and other infections, was 7.3 per 1000 population. This was comparable to the State rate of 7.4 per 1000 population. [1993-1998; UHDDS]
- The rate of hospital admissions for chronic ambulatory care sensitive conditions, such as asthma and diabetes, was 4.6 per 1000 population. This was the same as the State rate. [1993-1998; UHDDS]

- Rates (per 1000 population) of hospital admissions for three age categories were comparable between the HSA and the State. [1993-1997; PCAD]

	<b>HSA</b>	<b>State</b>	<b>Ratio (HSA/State)</b>
Pediatric	4.8	4.3	1.1
Adult	5.8	6.1	1.0
Elder	58.8	57.4	1.0

(Pediatric = up to age 18; Adult = 18-64; Elder = 65+)

- Adult and Elderly residents of the HSA experienced hospital admissions for injuries at rates significantly lower than the State rate. [1993-1997; PCAD]

	<b>HSA</b>	<b>State</b>	<b>Ratio (HSA/State)</b>
Pediatric	3.6	3.1	1.2
Adult*	5.5	6.2	0.9
Elder*	22.9	26.2	0.9

(Pediatric = up to age 18; Adult = 18-64; Elder = 65+)

\* = Significantly lower

- Medicare (34%) was the most common payor for hospital care for residents of the HSA, followed by commercial insurance, HMO, and other (each at 18%), Medicaid (8%), and self pay (4%).

## Observations on Risks of Future Illness

- The unemployment rate for the Keene HSA was 2.6% in 1999. This was comparable to the State average of 2.7%. [NHES]
- 9.5% of children under age 19 in the HSA received Medicaid and/or Food Stamp benefits. This was comparable to the State average of 9.1%. [1993-1997; PCAD]
- 2.4% of the adults under age 65 in the HSA received Medicaid and/or Food Stamp benefits. This was significantly higher than the State average of 2.1%. [1993-1997; PCAD]
- 20.8% of families in the HSA had incomes at or below 200% of the federal poverty level. The State average was 21.4%. [1999; NH HICAS]
- 91.8% of the adult population under age 65 in the HSA had completed High School, compared to the State average of 92.2%. [1999; NH HICAS]
- Selected birth characteristics in this HSA:
  - ✓ The rate of maternal smoking during pregnancy was 207 per 1000 live births compared to the State rate of 176 per 1000 live births. The HSA rate was significantly higher than the State rate. [1993-1997; PCAD]
  - ✓ The rate for late or no prenatal care (27 per 1000 live births) was significantly higher than the State rate (17 per 1000 live births). [1993-1997; PCAD]
  - ✓ Births to teen mothers occurred at a rate of 14.5 per 1000 live births compared to the State rate of 14.4 per 1000 live births. [1993-1997; PCAD]

- ✓ The rate of births to unmarried mothers (272 per 1000 live births) was significantly higher than the State rate (223 per 1000 live births). [1993-1997; PCAD]
- ✓ The rate of births to mothers who had less than 12 years of education was 137 per 1000 live births. This was significantly higher than the State rate of 109 per 1000 live births. [1993-1997; PCAD]
- ✓ The rate of births covered by Medicaid was 254 per 1000 live births. This was significantly higher than the State rate of 207 per 1000 live births. [1993-1997; PCAD]
- In this HSA 11.4% of the population under age 65 were uninsured for health care for some portion of the 12 months prior to the 1999 NH Health Insurance Coverage and Access Survey. The State average was the same.
- 7.2% of the population under age 65 in the HSA did not have health insurance at the time of the 1999 NH Health Insurance Coverage and Access Survey. The State average was 9.3%.
- 27.2% of residents under age 65 in the HSA were not insured for dental care. This was comparable to the State rate of 25.7%. [1999; NH HICAS]

## Additional Observations

By reviewing census data, it is possible to learn much about the people living in a community. Unfortunately, the most recent census available is from the 1990 US Census. It will be helpful to compare data from the 2000 census (which is underway) to that from 1990 to see how this HSA has changed in terms of:

- Households with children headed by single parents – In 1990 19.9% of households in the HSA were headed by a single parent (female headed: 15.4%; male headed: 4.4%). The State average was 17% of households headed by a single parent (13.1% were female headed and 3.9% were male headed). [1990; US Census]
- Income distribution – In 1990 18.8% of the families in the HSA had incomes below \$20,000 and 28.4% of the families in the HSA had incomes greater than \$50,000. The State average was 15.2% of families with income below \$20,000 and 37.0% of families with incomes greater than \$50,000. [1990; US Census]
- People isolated by virtue of:
  - ✓ Living alone – In this HSA 22.7% of the households were classified as “single person,” compared to the State average of 21.9%. [1990; US Census]
  - ✓ Not speaking English – In this HSA 0.5% of the households were linguistically isolated, compared to the State average of 1.5%. [1990; US Census]
  - ✓ Not owning a vehicle – In this HSA 20.5% of the population did not have personal transportation, compared to a State average of 16.1%. [1990; US Census]

- Population stability, as reflected in
  - ✓ Not relocated over the last 5 years – In this HSA 52.5% of the households lived in the same location at least 5 years, compared to the State average of 47.8%. [1990; US Census]
  - ✓ Owned a home rather than rented – In this HSA 76.1% of the population lived in owner-occupied housing, compared to the State average of 73.6%. [1990; US Census]